Title (en)
METHOD FOR DETERMINING THE MOLECULAR MASS OF CONSTITUENTS OF A CHEMICAL ELEMENT

Title (de)
VERFAHREN ZUR MOLEKULAR MASSEN-BESTIMMUNG DER BESTANDTEILEN EINES CHEMISCHEN STOFFES

Title (fr)
METHODE DE DETERMINATION DE LA MASSE MOLECULAIRE DES CONSTITUANTS D'UN CORPS CHIMIQUE

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Application
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Abstract (en)
[origin: WO0227757A1] The invention concerns a method for determining the molecular mass M of at least a chemical element at the output of a mass spectrometer comprising a dissociation box (16) wherein the ions of the elements supplied by an ion source are dissociated into several fragments after having struck the molecules of an inert gas (18), an electrostatic analyzer (20) wherein the fragments are subjected to an electrostatic field between two electrodes (22, 24) so as to select the fragments having a predetermined specific mass ($m>i<$) according to the electrostatic field and a detector (26) for detecting the fragments at the output of the electrostatic analyzer. The method consists in calculating the ration between the masses of two unknown fragments for all the possible couples of fragment masses, comparing each of the ratios obtained with the mass ratios of standard fragments corresponding to the compounds currently obtained by dissociation of a particular element, and in determining the mass M of the element using the ratios of unknown fragments which are equal to the ratios of the standard fragments.

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